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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,425

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Stefan Tumback

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KENYON & KENYON LLP  
ONE BROADWAY  
NEW YORK, NY 10004

EXAMINER

AVERY, BRIDGET D

ART UNIT

PAPER NUMBER

3618

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,425	<b>Applicant(s)</b> TUMBACK ET AL.	
	<b>Examiner</b> BRIDGET AVERY	<b>Art Unit</b> 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 19,21,22,24-27 and 30-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19,21,22,24-27 and 30-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The indicated allowability of claim 29 (now rewritten in independent form by the amendment to claim 27) is withdrawn in view of the newly discovered reference(s) to Kotre et al. (US Patent 6,664,651). Rejections based on the newly cited reference(s) follow.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 19, 21, 22, 27, 30-32, 35 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Kotre et al. (US Patent 6,664,651).

Kotre et al. teaches a hybrid system including: an internal combustion engine (24) having a drive shaft and an engine management system (see separate controllers 46 and 48); and at least one speed controlled electric machine (30) coupled to the drive

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shaft of the internal combustion engine (24) during idling; means (associated with the controller 46, as described in col. 4, lines 20-37 and col. 6, lines 26-43) for determining power demands of an electrical system of the motor vehicle during idling; a pre-control unit (note the teaching of scheduling torque in col. 6, lines 32-43) for converting the power demands of the electrical system of the motor vehicle during idling into a setpoint torque of the internal combustion engine (24); where, during idling, the engine management system (46) controls the engine (24) in one of open and closed loop as a function of the power demands of the electrical system of the motor vehicle; where during idling the engine (24) is speed-controlled with the aid of the electric machine (30); a power output of the engine (24) is adjusted to an instantaneous power demand of the electrical system of the motor vehicle (by modifying the amount of engine torque requested—see col. 5, lines 55-60); and the setpoint torque of the engine (24) is determined as a function of the instantaneous power demand of the electrical system of the motor vehicle, and at least one of an injection quantity, an air quality, and an ignition angle of the engine is adjusted according to the determined setpoint torque (see col. 7, lines 6-11 and teaching of secondary engine idle mode where the controller 46 controls the engine idle speed via conventional control of fuel, airflow and ignition timing). Re claims 21 and 35, the means for determining the power demands of the electrical system of the motor vehicle during idling includes means for determining a state of charge of the battery of the motor vehicle (as taught in col. 4, lines 30-37). Re claims 22 and 36, the means for determining the power demands of the electrical system of the motor vehicle during idling includes means for detecting turned-on loads associated with

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the electrical system and calculating a nominal power of the turned-on loads (such as the reservoir vacuum described in col. 4, lines 52-61). Re claims 27 and 30-32, the method for idle-speed control of a hybrid drive of a motor vehicle having an engine and at least one speed-controlled electric machine is clearly taught and described in col. 2, lines 46-67 and col. 3, lines 1-20.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 24-26, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotre et al. ('651) in view of Tokushima et al. (US Patent 5,690,580).

Kotre et al. teaches the features described above.

Kotre et al. lacks the teaching of measuring a power output of the at least one speed-controlled electric machine and the teaching of a comparator device.

Tokushima et al. teaches a means (see motor control circuit 19 and rotational speed sensor 21) for measuring a power output of at least one speed-controlled electric machine (30) and a comparator device/circuit (27). See col. 3, lines 53-65

Based on the teachings of Tokushima et al., it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to modify the system of Kotre et al. by adding old and well known means for measuring a power output of the at least one speed-controlled electric machine and an old and well known comparator

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device/circuit to determine the control state of the electric machine by an arrangement simple in construction. Re claim 34, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to slowly adjust the setpoint torque based on the setpoint torque is adjusted based on any deviation of the measured power output and the calculated power output of the electric machine to minimize or eliminate noticeable torque fluctuations.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 19, 21, 22, 24-27 and 30-36 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kotre et al. shows an adaptive fuel strategy for a hybrid electric vehicle.

Morimoto et al. shows a motor control apparatus combined to engine.

Kiyomiya et al. shows a control apparatus for hybrid vehicle.

De La Salle et al. shows a control of idle speed in a hybrid powertrain configuration.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIDGET AVERY whose telephone number is (571)272-6691. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 9:00AM to 5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris, can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Bridget Avery/

Examiner, Art Unit 3618

/Paul N. Dickson/

Supervisory Patent Examiner, Art Unit 3616